Dataflow and analysis Document
For
Digitalized System to Book an Ambulance

Version 1.0 approved

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REVISION HISTORY

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Dataflow Document

1. Introduction

1.1 Purpose

This document provides a comprehensive overview of the dataflow in the system, using a number of different levels of dataflow views to depict different aspects of the system. It also provides the structural design of the system and a data dictionary. It is intended to capture and convey the significant data related decisions which have been made on the system.

1.2 Scope

The various dataflow designs shown in this document affect the functioning of the whole system. Each module is related to other modules directly or indirectly. As such this document can be considered as an overview of dataflow and related structure of the whole system.

1.3 Definitions, Acronyms, and Abbreviations

Database: Google firebase service

Maps: Google maps platform

Driver details: Information pertaining to the driver

Patient details: Information pertaining to the patient

Location info: Location latitude and longitude

1.4 References

[1]. Firebase, Wikipedia, 09/08/2017, URL: https://en.wikipedia.org/wiki/Firebase

[2]. Google APIs, Wikipedia, 31/08/19, URL: https://en.wikipedia.org/wiki/Google_APIs

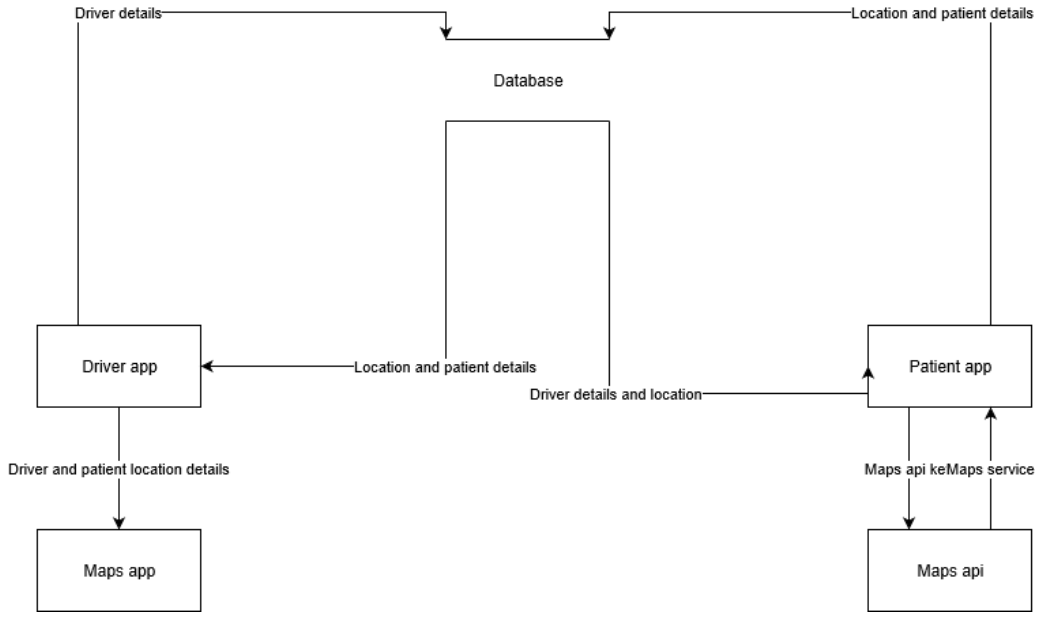
2. Dataflow Representation

In this document the flow of data in the system is shown. The structured analysis of the system is also provided along with a data dictionary.

3. Goals and Constraints

Our system is dependent on real-time databases. Constructing this system on other databases may require change in the dataflow of the system. Also, the system is dependent on google maps platform. Non-availability of google maps app and/or browser will impact the dataflow, especially for the Driver module.

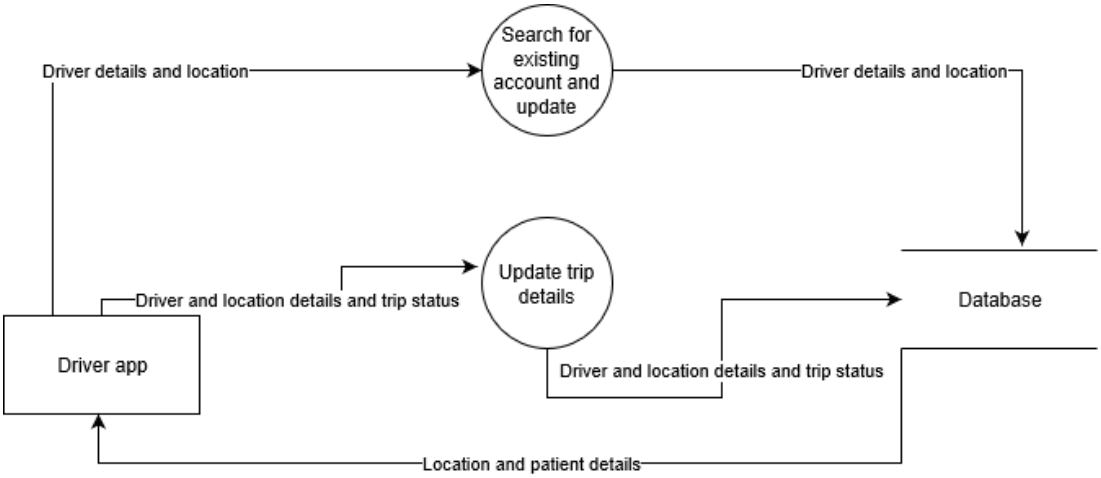
4. Context level view



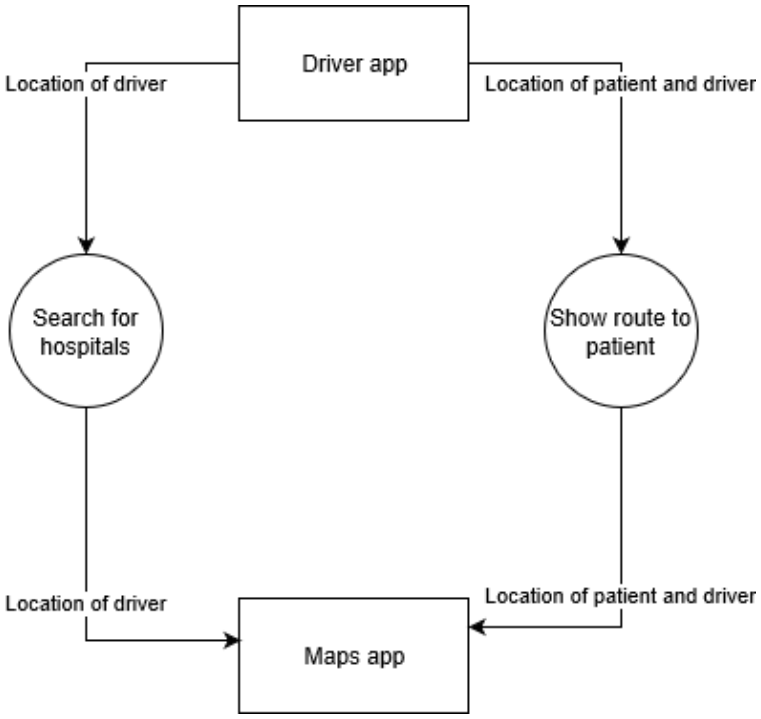
5. Level-wise View

5.1 Level 1

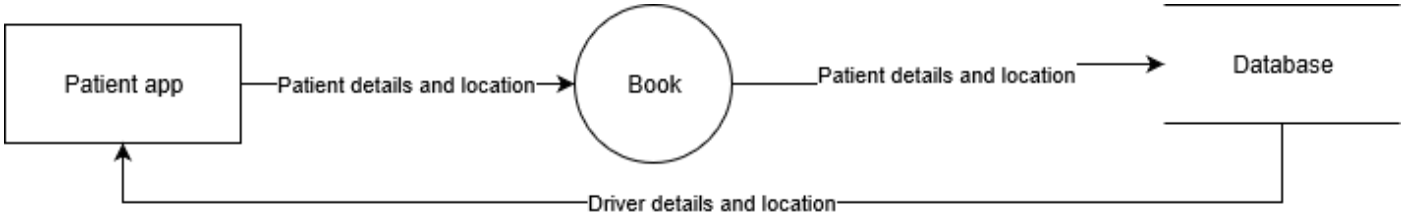
Driver app and database



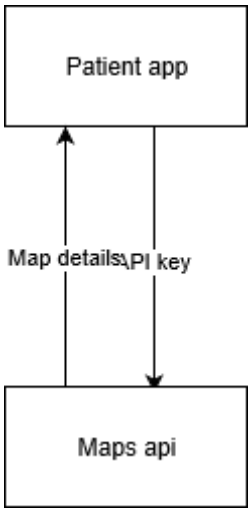
Driver app and maps app



Patient app and database

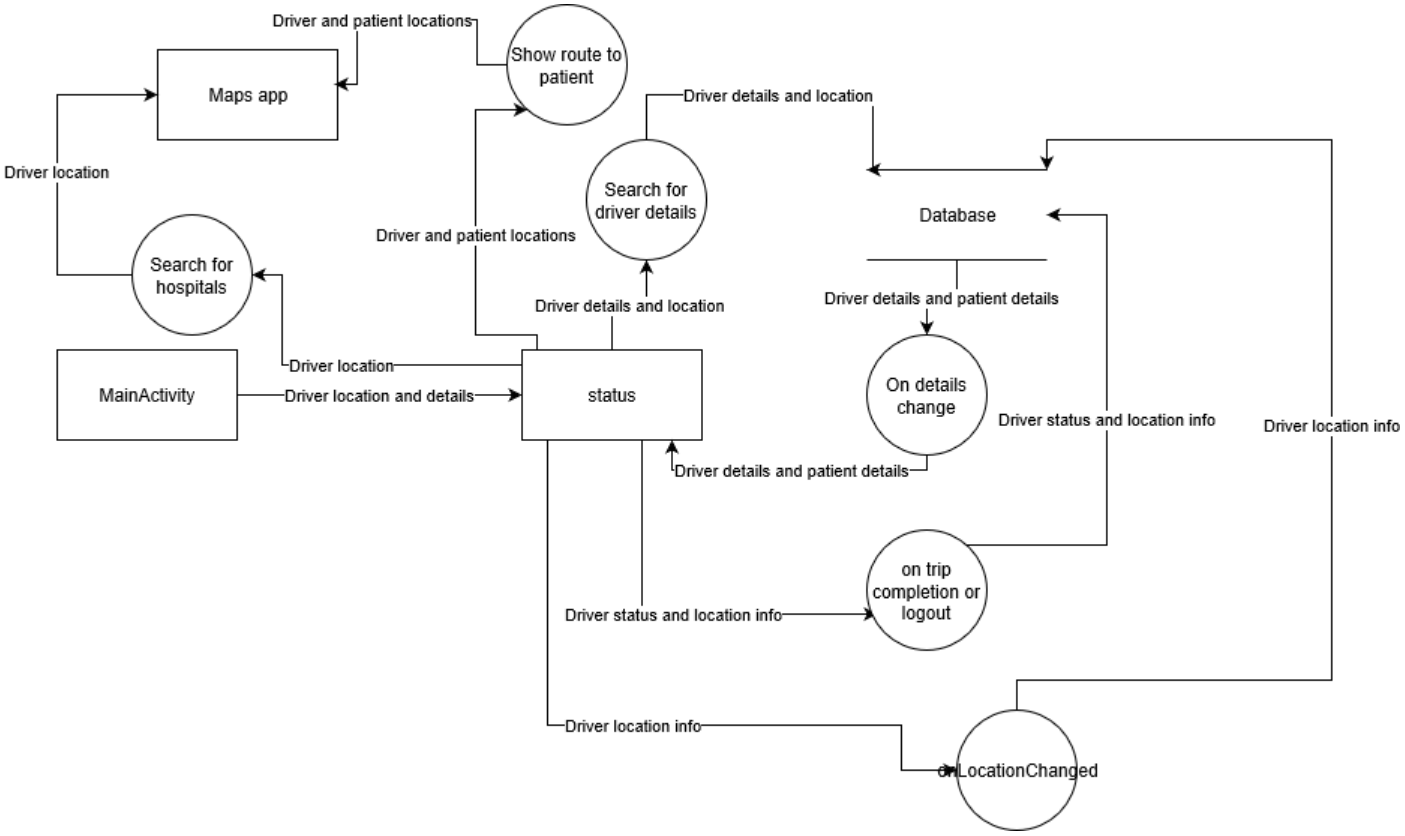


Patient app and Maps API

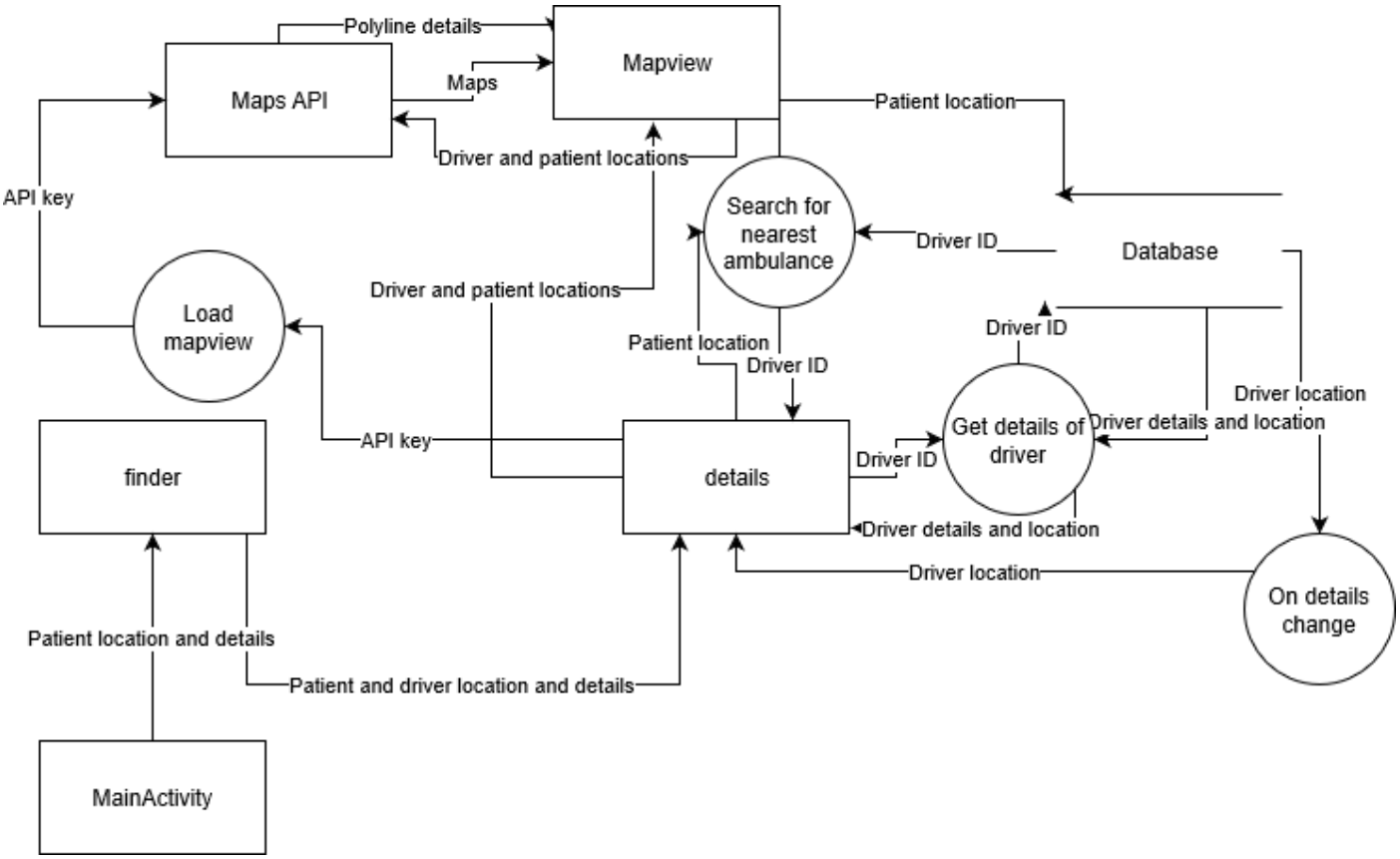


5.2 Level 2

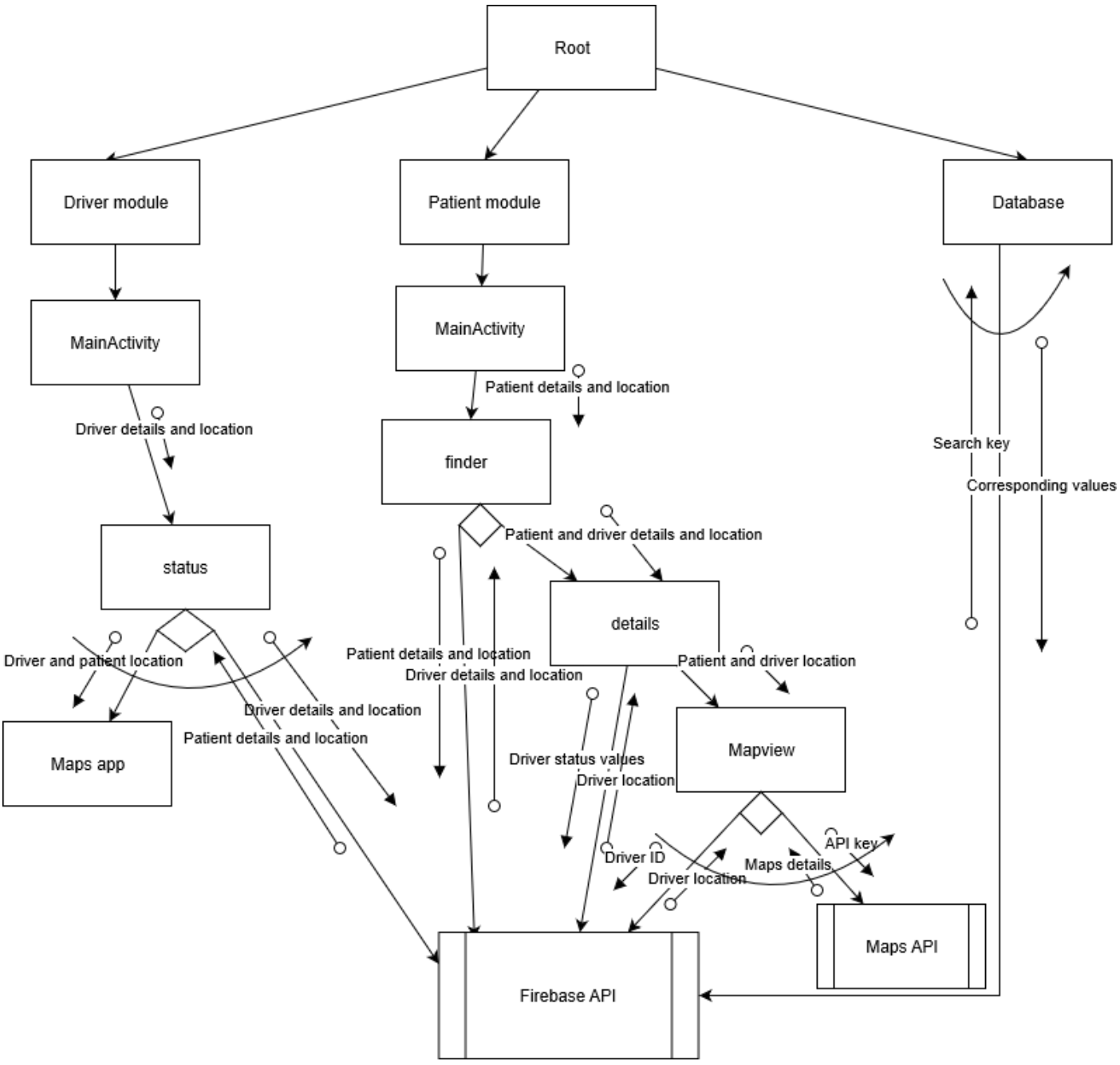
Driver app



Patient app


Polyline details
Mapview
Maps API
Maps
Patient location
Driver and patient locations
API key
Search for nearest ambulance
Driver ID
Database
Load mapview
Driver and patient locations
Patient location
Driver ID
Driver ID
Driver location
Get details of driver
Driver details and location
API key
finder
details
Driver ID
Driver details and location
Driver location
On details change
Patient location and details
Patient and driver location and details
MainActivity

6. Structure chart



7. Data dictionary

[1] Driverdetails = [driverID, drivername, drivermobile, drivercar, driverstatus]
[2] Driverlocation = [driverlatitude, driverlongitude]
[3] Patientdetails = [patientname, patientmobile, carchoice]
[4] Patientlocation = [patientlatitude, patientlongitude]
[5] DriverID = string
[6] Drivername = string
[7] Drivermobile = string
[8] Drivercar = string
[9] Driverstatus = [status, available]
[10] Status = Boolean
[11] Available = Boolean
[12] Patientname = string
[13] Patientmobile = string
[14] Carchoice = [AC/Non-Ac]
[15] Driverlatitude = double
[16] Driverlongitude = double
[17] Patientlatitude = double
[18] Patientlongitude = double
[19] API key = string
[20] Map = GoogleMap
[21] Mapdetails = map